

**Notice of Allowability**

Application No.

09/926,658

Examiner

Nguyen Ngo

Applicant(s)

KENRO HIRATA

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/29/2001.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20050624.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 3/12/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **Examiner's Amendment**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Surinder Sachar on 7/06/2005.

The application has been amended as follows:

2. - The title has been replaced with the new title shown below:  
-- Signal Processor In Multiplex Communication System Utilizing a Changeover Signal Indicating a Change In Gain of the Transmission Signal and the Signal Processing Method for the System --.
3. - The abstract has been replaced with a new abstract shown below:  
-- A signal generating unit is arranged to generate a filter changeover signal a, which indicates the changeover from a plurality of waveform reshaping units of a first group corresponding to the reception of the modulated signals to a plurality of waveform reshaping units of a second group, in cases where an electric power gain value of the transmission signal is changed, to send the changeover signal a to the filter selecting unit, to generate a new gain signal of which a new electric power gain value is changed from an electric power gain value of the gain signal to send the new gain signal to the multipliers corresponding to the waveform reshaping units of the

Art Unit: 2663

second group, and to successively send the gain signal having the electric power gain value to the multipliers corresponding to the waveform reshaping units of the first group during a prescribed time period after the change of the gain signal to the new gain signal --.

4. - Figure 1 has been labeled with -- Prior Art --.

***Allowable Subject Matter***

5. Claims 1- 20 are allowed.

The following is an examiner's statement for reason for allowance:

6. Claims 1 and 7 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose **a signal generating means for generating the changeover signal, which indicates the changeover from the waveform reshaping means of the first group corresponding to the reception of the modulated signals to the waveform reshaping means of the second group in cases where an electric power gain value of the transmission signal is changed, sending the changeover signal to the selecting means, generating a new gain signal of which a new electric power gain value is changed from an electric power gain value of the gain signal, sending the new gain signal to the multiplying means corresponding to the waveform reshaping means of the second group, and successively sending the gain signal having the electric**

power gain value to the multiplying means corresponding to the waveform reshaping means of the first group during a prescribed time period after the change of the gain signal to the new gain signal. It is noted that the closest prior art, Willenegger et al. (US Patent 6,240,071) shows independently controlling the transmitted power of each sub-channel wherein each sub-channel is amplified with a unique gain value that is varied in accordance with sub-channel power control messages from the receiving station. However, Mitts et al. fails to disclose or render obvious the above underlined limitations as claimed.

7. Claim 13 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a step of generating the changeover signal, which indicates the changeover from the waveform reshaping means of the first group corresponding to the reception of the modulated signals to the waveform reshaping means of the second group, in cases where an electric power gain value of the transmission signal is changed, to select the waveform reshaping means of the second group; a step of generating a new gain signal of which a new electric power gain value is changed from an electric power gain value of the gain signal; step of sending the new gain signal to the multiplying means corresponding to the waveform reshaping means of the second group; and a step of successively sending the gain signal having the electric power gain value to the multiplying means corresponding to the waveform reshaping means of the first group during a prescribed time period after the change of the gain

Art Unit: 2663

**signal to the new gain signal**. It is noted that the closest prior art, Willenegger et al. (US Patent 6,240,071) shows independently controlling the transmitted power of each sub-channel wherein each sub-channel is amplified with a unique gain value that is varied in accordance with sub-channel power control messages from the receiving station. However, Mitts et al. fails to disclose or render obvious the above underlined limitations as claimed.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Willenegger et al. (U.S 6240071), Subchannel Control Loop.

b) Odenwalder (U.S 2002/0009096), High Data Rate CDMA Wireless Communication System.

Art Unit: 2663

- c) Park (U.S 6269113), Modulated Signal Generator For W-CDMA Channel in A Wireless Local Loop System.
- d) Jung et al. (U.S 6728299), Transmitter Gain Control For CDMA Signals.
- e) Shull et al. (U.S 6625227), Artificial Ramping Of Transmit Power For Burst Transmissions.
- f) Moon et al. (U.S 6577608), Communication Control Device And Method For CDMA Communication System.
- g) Odenwalder et al. (2003/0128680), Receiver Method And Apparatus With Complex Pilot Filter.
- h) Moon (U.S 6888804), Apparatus And Method For Inserting Side Information In Communication System.
- i) Nakano et al. (U.S 4806845), System For Measuring And Generating Electric Noise.

Art Unit: 2663

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571) 272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*NN.*  
**Nguyen Ngo**

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*Ricky Ngo*  
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PRIMARY EXAMINER

7/11/05

Application/Control Number: 09/926,658  
Art Unit: 2663

Page 8



FIG.1 (PRIOR ART)

